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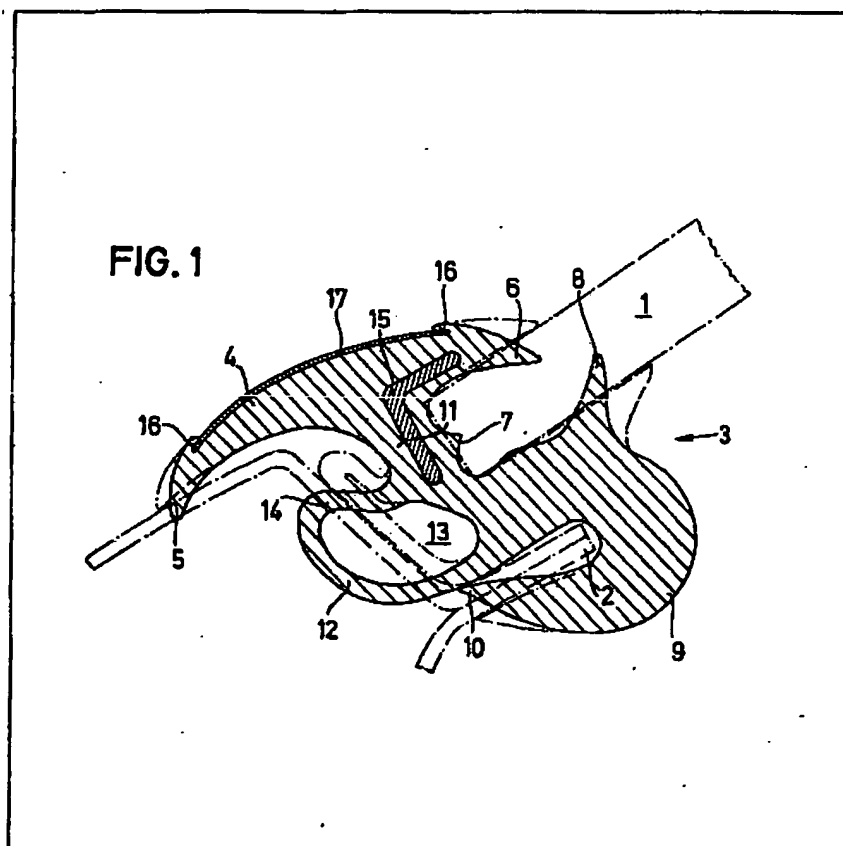
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(54) Glazing strip for a vehicle  
windscreen

(57) A glazing strip for mounting a  
window pane (1) in a flanged window  
aperture e.g. for a motor vehicle  
windscreen comprises a groove (7)  
for receiving the edge of the window  
pane, a lip (9) on one side of the strip

for extending over the flange (2) of the  
window aperture, a strip portion (4)  
on the other side of the strip for covering  
the gap between the window pane  
and the window aperture and a  
tubular seal (12) adjacent the bottom  
of the groove having a wall (14) which  
is deformable to provide a support for  
the bottom of the groove against the  
window aperture.



GB2 024 906 A

FIG. 1

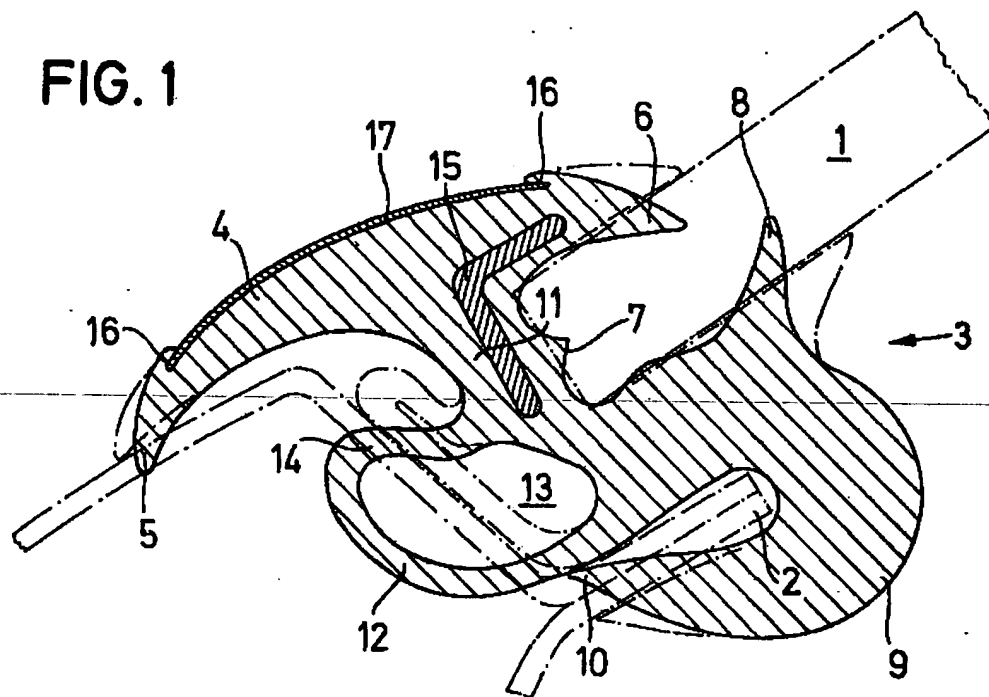
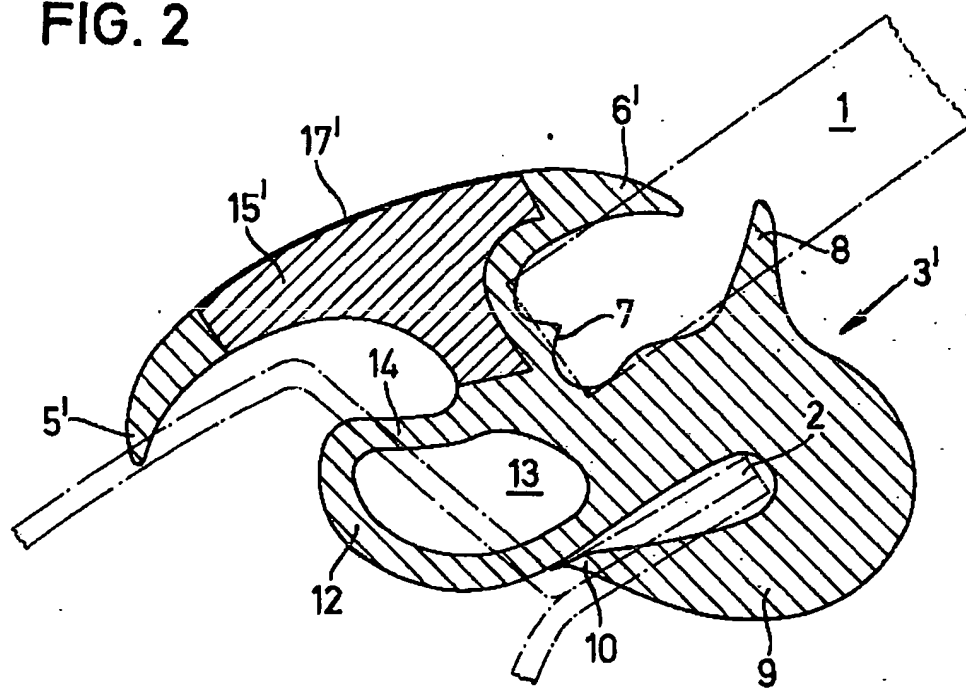


FIG. 2



## SPECIFICATION

**Elastic sealing and fixing strip, especially for windcreens in motor vehicle bodywork**

5 The invention relates to an elastic sealing and fixing strip, especially for windcreens in motor vehicle bodywork.

One known type of elastic sealing and fixing strip which has already been disclosed in a very large number of very diverse embodiments, comprises an arch which covers the gap between the windscreen and the bodywork, a groove which receives the edge of the windscreen and a lip which extends over the flange edge of a window opening, as well as a number of sealing lips which are supported against adjoining parts, are supported by harder inserts or are sprung as a result of the presence of hollow chambers.

German Auslegeschrift 1,025,738 discloses a sealing and fixing strip with a hollow chamber surrounding the groove which receives the edge of the windscreen. This hollow chamber permits better adaptation of the groove to the shape of the rim of the windscreen, but in no way improves the sealing action of the strip in relation to the bodywork.

German Auslegeschrift 1,254,034 shows a sealing and fixing strip with undercut edges, for receiving a decorative strip. The decorative strip is sealed against the bodywork by sealing lips.

30 German Auslegeschrift 1,914,350 discloses a sealing and fixing strip with a hollow chamber located below the base of the groove which receives the rim of the windscreen. This hollow chamber however does not improve the sealing action of the strip towards the bodywork, and an additional adhesive must be employed.

German Offenlegungsschrift 2,041,407 discloses a sealing and fixing strip with embedded harder inserts for stiffening certain parts of the sealing strip. Here again, the strip is sealed against the bodywork only by simple sealing lips.

Continuous experience in the mass-production of motor vehicles shows, in spite of a great variety of embodiments of sealing and fixing strips employed over the years, that, given the wide tolerances encountered in bodywork construction, a large number of leaks at the assembled windscreen arrangements must always be expected. The sealing operation required to overcome these leaks, entailing injection of additional sealing compositions under the sealing lips, leads either to considerable increases in production costs as a result of the subsequently required cleaning operations, or detracts from the status of the manufacturing company if this sealing operation is only carried out if a leak should occur.

It is therefore the object of the invention to improve a sealing and fixing strip of the initially-mentioned type in such a way that improved leakproofing of the fitted windscreen arrangement is achieved without the use of additional sealing compositions.

So-called tubular sealing strips, such as are

65 disclosed, for example, in German Offenlegungsschrift 1,680,226 have already been employed successfully for some time in a related field, namely the sealing of movable bodywork parts. As a result of their pneumatic behaviour under load due to the movable bodywork part, these tubular sealing strips provide good compensation for varying tolerances. However, they are unsuitable for sealing a fixedly fitted windscreen arrangement, since, for this purpose, they would have to provide a supporting and holding function, for which they are not suitable.

70 According to the invention, there is provided a sealing strip for mounting a window pane in a flanged window aperture comprising a groove for receiving the edge of the window pane, a lip on one side of the strip for extending over the flange of the window aperture, a strip portion on the other side of the strip for covering the gap between the window pane and the window aperture and a tubular seal adjacent the bottom of the groove having a wall which is deformable to provide a support for the bottom of the groove against the window aperture.

The desired reliable sealing and supporting action is not achieved merely by combining the sealing and fixing strip, provided with a substantially conventional profile, with a tubular sealing lip which is known per se, but rather as a result of the deformation of one wall of tubular seal. Preferably, the wall deforms into a Z-shaped bend, thus providing a support of greater thickness than the remaining wall. This deformed seat provides support for the windscreen simultaneously with the good sealing action.

100 The invention is explained in more detail in relation to two illustrative embodiments shown in the drawings. In these:

Figure 1 shows an enlarged, vertical section through a sealing and fixing strip according to the invention, the solid lines corresponding to the non-fitted state and the dot-dash lines to the fitted state, and

Figure 2, shows a similar section to Figure 1, through a further embodiment of a sealing and fixing strip.

In the figures, a windscreen 1 is located in a window opening, formed by a flange rim 2, of a motor vehicle body, and is sealed and held by a sealing and fixing strip 3.

The sealing and fixing strip 3 has a strip portion in the form of an arch 4, which covers the gap between the windscreen and the bodywork. This arch rests, on the one hand, against the bodywork via a sealing lip 5 and, on the other hand, against the windscreen 1 via a sealing lip 6. The sealing and fixing strip 3 has a receiving groove 7 corresponding to the thickness of the windscreen 1. A sealing lip 8 rests against the inside of the windscreen 1. The sealing and fixing strip 3 has a holding lip 9, overlapping the flange rim 2, which lip rests against the bodywork by a sealing lip 10.

The sealing and fixing strip 3 is provided, next to the bottom 11 of the receiving groove 7, with a hollow chamber 13 forming a tubular sealing lip

12, one wall of which, 14 is bent Z-shaped to form the extension of the receiving groove 7 and is thicker than the remaining wall of the tubular sealing lip 12.

- 5 The thicker wall 14, which is bent Z-shaped, is of such curvature and such thickness, that when subjected to a certain load from the weight of the windscreen 1 it is compressed to form a narrow Z-support and possibly a Z-block length. The thicker wall 14 which is bent Z-shaped thus provides the remaining part of the tubular sealing lip 12 to exert the pneumatic sealing function.

- 10 The sealing and fixing strip 3 can be provided with an L-shaped support strip 15, of a harder material, which surrounds the front edge of the groove 7 which receives the windscreen 1. This support strip 14 is however only required if certain high demands are made in respect of the resistance of the windscreen arrangement to

- 20 ejection. The covering arch 4 of the sealing and fixing strip 3 is provided with undercut edges 16 which serve to hold a sheet-metal or foil decorative strip 17.

- 25 Figure 2 shows a further embodiment of a sealing and fixing strip, wherein the identical parts carry the identical reference numerals, whilst differing parts carry reference numerals provided with a superscript dash.

- 30 In the embodiment of a sealing and fixing strip 3, shown in Figure 2, the original L-shaped support strip of harder material has been broadened to form a T-shaped profile strip 15', the back of which replaces the previous covering arch 4, and onto which a decorative foil strip 17' can be sealed directly. The ends of the T-shaped

- 35 profile strip 15' are provided with appropriate

moulded-on sealing lips 5' and 6' of an elastic material.

- 40 The thicker wall, bent Z-shaped, of the tubular sealing lip not only exerts a supporting function in the lower region of the windscreen, but also provides a defined fold line for the tubular sealing lip in the vertical and upper horizontal regions of the windscreen seal.

#### CLAIMS

1. A sealing strip for mounting a window pane in a flanged window aperture comprising a groove for receiving the edge of the window pane, a lip on one side of the strip for extending over the flange of the window aperture, a strip portion on the other side of the strip for covering the gap between the window pane and the window aperture and a tubular seal adjacent the bottom of the groove having a wall which is deformable to provide a support for the bottom of the groove against the window aperture.

2. A sealing strip according to claim 1, further comprising a support strip of a harder material in the strip and surrounding the front edge of the groove.

3. A sealing strip according to claim 1 or claim 2 wherein undercut edges for holding a decorative strip are provided on the strip portion.

4. A sealing strip according to claim 2, characterised in that the support strip has a T-shaped profile strip onto the back of which a decorative strip is sealed directly, and onto the ends of which are moulded sealing lips of an elastomeric material.

5. A sealing strip substantially as hereinbefore described and as illustrated in Figure 1 or 2 of the drawings.